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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,072	04/27/2001	Gary Winkler	12129-00013	9597
7590	10/17/2003		EXAMINER	
John S. Beulick Armstrong Teasdale LLP Suite 2600 One Metropolitan Sq. St. Louis, MO 63102			CIRJC, LJILJANA V	
			ART UNIT	PAPER NUMBER
			3753	
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9

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. <b>09/844,072</b>	Applicant(s) <b>Winkler et al.</b>
	Examiner <b>Ljiljana V. Cirovic</b>	Art Unit <b>3753</b>
		
<i>-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --</i>		
<b>Period for Reply</b> A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.		
<ul style="list-style-type: none"> <li>- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.</li> <li>- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.</li> <li>- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.</li> <li>- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).</li> <li>- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).</li> </ul>		
<b>Status</b> <p>1) <input checked="" type="checkbox"/> Responsive to communication(s) filed on <u>Apr 27, 2001</u></p> <p>2a) <input type="checkbox"/> This action is FINAL.      2b) <input checked="" type="checkbox"/> This action is non-final.</p> <p>3) <input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i>, 1935 C.D. 11; 453 O.G. 213.</p>		
<b>Disposition of Claims</b> <p>4) <input checked="" type="checkbox"/> Claim(s) <u>1-43</u> is/are pending in the application.</p> <p>4a) Of the above, claim(s) <u>1-22, 32, 33, 35, and 41</u> is/are withdrawn from consideration.</p> <p>5) <input type="checkbox"/> Claim(s) _____ is/are allowed.</p> <p>6) <input checked="" type="checkbox"/> Claim(s) <u>23-31, 34, 36-40, 42, and 43</u> is/are rejected.</p> <p>7) <input type="checkbox"/> Claim(s) _____ is/are objected to.</p> <p>8) <input type="checkbox"/> Claims _____ are subject to restriction and/or election requirement.</p>		
<b>Application Papers</b> <p>9) <input checked="" type="checkbox"/> The specification is objected to by the Examiner.</p> <p>10) <input checked="" type="checkbox"/> The drawing(s) filed on <u>Aug 23, 2001</u> is/are a) <input type="checkbox"/> accepted or b) <input checked="" type="checkbox"/> objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).</p> <p>11) <input type="checkbox"/> The proposed drawing correction filed on _____ is: a) <input type="checkbox"/> approved b) <input type="checkbox"/> disapproved by the Examiner. If approved, corrected drawings are required in reply to this Office action.</p> <p>12) <input type="checkbox"/> The oath or declaration is objected to by the Examiner.</p>		
<b>Priority under 35 U.S.C. §§ 119 and 120</b> <p>13) <input type="checkbox"/> Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</p> <p>a) <input type="checkbox"/> All b) <input type="checkbox"/> Some* c) <input type="checkbox"/> None of:</p> <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Certified copies of the priority documents have been received.</li> <li>2. <input type="checkbox"/> Certified copies of the priority documents have been received in Application No. _____.</li> <li>3. <input type="checkbox"/> Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> </ol>		
<p>*See the attached detailed Office action for a list of the certified copies not received.</p> <p>14) <input checked="" type="checkbox"/> Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).</p> <p>a) <input type="checkbox"/> The translation of the foreign language provisional application has been received.</p> <p>15) <input type="checkbox"/> Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.</p>		
<b>Attachment(s)</b> <p>1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____</p> <p>4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</p> <p>6) <input type="checkbox"/> Other: _____</p>		

## **DETAILED ACTION**

### ***Election / Restriction***

1. Applicant's election without traverse of the fourth species, readable on claims 23 through 30, 31, 34, 36 through 40, 42, and 43, in Papers No. 6 and 8, is acknowledged. Applicant's assertion that at least claims 31 and 39 are generic is not persuasive since, while a generic claim must read on each of the species, the fact that a claim merely does so is not conclusive that it is generic. For example, a generic claim CANNOT include limitations which are NOT present in EACH of the added species claims. See MPEP 806.04(d). Applicant's traversal on the basis that "species 1-5 clearly are related" and that examining all of the species together "would not be a serious burden on the examiner" are also not found persuasive because these arguments represent a broad allegation that no serious burden would be placed on the examiner without the applicant specifically pointing out the reasons on which he or she bases his or her conclusions that a requirement to restrict is in error. Applicant does not, for example, clearly state for the record that the species are not patentably distinct from one another.

2. Claims 1 through 22, 32, 33, 35, and 41 are hereby withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 6.

### ***Drawings***

3. New corrected drawings are required in this application because the drawings are almost not of sufficient quality for examination. See attached PTO-948. Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer

Art Unit: 3743

prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will NOT be held in abeyance.

*Specification*

4. The abstract of the disclosure is objected to because it does not accurately characterize the essential structural elements of the elected inventive apparatus since, for example, it refers to a three-way valve and not to a two-way valve. Also, "exceeding 5" should be rewritten as "exceeding five" for improved readability. Correction is required. See MPEP § 608.01(b).

*Claim Rejections - 35 USC § 112*

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 25, 27 through 31, 34, 36 through 40, 42, and 43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 25 as written, it is not clear which particular structural configurations of the apparatus would meet the limitation "configured to achieve a temperature control precision of  $\pm 0.1^{\circ}\text{F}$ " as recited in the claim, thus rendering claim 25 indefinite with regard to the metes and bounds of protection sought. Also, it is not clear whether the particular temperature control precision range is to be met throughout the apparatus or at a particular point within the apparatus.

With regard to claim 27 as written, it is also not clear whether the claimed temperature control precision is to be met throughout the fluid or only at a particular point within the fluid, thus rendering indefinite the metes and bounds of protection sought by claim 27 and by all claims depending therefrom.

For example, it is not clear whether or not the desired temperature recited in line 5 of base claim 31 refers to the desired temperature as recited in line 3 of the same claim, thus rendering indefinite the metes and bounds of protection sought by the claim and all claims depending therefrom.

With regard to claim 34 as written, it is not clear what is encompassed by the limitation “heating a portion of the fluid *to a temperature* comprises routing a portion of the chilled fluid through a heater”.

It is also not clear what is encompassed by the limitation “controlling *an amount of chilling* applied to the fluid” as recited in line 4 of claim 36.

With regard to apparatus base claim 39 as written, it is not clear whether or not the desired temperature as recited in the next-to-the-last line of the claim refers to the same desired temperature as that recited in lines 3-4 of the claim.

Also with regard to claim 39 as written, the recitation of “a first fluid reservoir” implies that there exists at least a second fluid reservoir, but no such second reservoir is ever recited in the claims. Recommend replacing “a first fluid reservoir” in claim 39 and in all claims depending therefrom with “a fluid reservoir” for improved clarity.

Claim 40 is not in proper Markush format.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

8. As best can be understood in view of the indefiniteness of claim 25, claims 23, 25, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Pirkle.

Pirkle discloses a fluid supplying apparatus or system essentially as claimed, including, for example: a cold reservoir or cool water source 34; a fluid conduit 38 connected to the cold reservoir 34; a heated bypass loop including heater 40 and a two-way control or mixing valve 44; and, a temperature

Art Unit: 3743

responsive flow-control valve 26. In general, little or no patentable weight is given to functional and intended use limitations in the apparatus claims.

The reference theirs reads on the claims.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. As best can be understood in view of the indefiniteness of the claims, claim 27, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pirkle.

As discussed in greater detail above, Pirkle discloses a fluid supplying apparatus and method essentially as claimed, including mixing fluid from a heated bypass loop with fluid from the cold reservoir or cool water source 34 to achieve fluid temperatures within a desired range. While Pirkle does not specify a particular temperature control precision, optimizing the range for a single operational variable, such as the precision of the temperature control to be achieved, is within the purview of one skilled in the art of designing fluid systems (such as a design engineer) and is thus not inventive. See In re Aller, 105 USPQ 233 (CCPA 1955).

11. Thus, it would have been obvious to one skilled in the art at the time of invention to modify the fluid delivery and control system and method of Pirkle by optimizing (i.e., narrowing) the range for the precision of the temperature control to be achieved by the fluid at a given point in the system.

12. As best can be understood in view of the indefiniteness of claim 28, claims 24 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pirkle.

As discussed in greater detail above, Pirkle discloses a fluid supplying apparatus or method essentially as claimed, including a cold reservoir or cool water source 34, but does not specifically disclose how the cooled or chilled water source is to be chilled.

Nevertheless, Official Notice is hereby taken that each of these is known in the art of fluid handling and heat transfer systems design to chill the fluid in a cold reservoir using a chiller.

Thus, it would have been obvious to one skilled in the art at the time of invention to modify the fluid supplying apparatus or method by chilling or cooling the cold reservoir using a chiller in order to maintain the temperature of the fluid in the reservoir below a certain desired temperature.

Thus, at the time of invention, it would have been obvious to one skilled in the art to modify the fluid supplying system of Pirkle to use a programmable heater controller in order to allow more precise and instantaneously responsive control and a chiller in order to ensure the cool water source is sufficiently cool.

*Allowable Subject Matter*

13. Claims 31, 34, 36 through 40, 42, and 43 would be allowable if rewritten or amended, without significant broadening, to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

*Conclusion*

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Stefani and Fujimoto et al. each discloses a coolant temperature control circuit of interest.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Cirim, whose telephone number is (703) 308-3925.

While she works a flexible schedule that varies from day to day and from week to week, Examiner Cirim may generally be reached at the Office during the work between the hours of 10 a.m. and 6 p.m. ET.

Art Unit: 3743

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett, can be reached on (703) 308-0101. The fax phone number is (703) 308-0101. The fax phone number is (703) 305-3463.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

LVC

September 5, 2003



LJILJANA (LIL) V. CIRIC

**PRIMARY EXAMINER**

**ART UNIT 3743**